

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of determining whether a printed-image-under-examination (PIUE) is a copy of an original printed image, the method comprising:

(a) scanning the PIUE to generate scanned image data, the scanned image data comprising pixel data, the pixel data comprising gray scale values and representing the PIUE as a set of scanning pixels;

(b) forming a plurality of data blocks from the scanned image data, each data block consisting of pixel data which corresponds to a respective region of the PIUE;

(c) transforming the pixel data in at least some of the data blocks to obtain transform domain data by applying at least one of a Fourier transform, a fast Fourier transform, a discrete cosine transform (DCT) and a wavelet transform to the pixel data in the at least some of the data blocks to obtain the transform domain data;

(d) applying a watermark detecting operation to the transform domain data for respective ones of the data blocks to generate recovered watermark data; and

(e) determining a correlation between the recovered watermark data for at least some of the data blocks and average brightness levels for said data blocks.

2. (Currently Amended) The method according to claim 1, further comprising:

(f) determining that the PIUE is a copy of the original printed image if a strength of a brightness level of the recovered watermark data is negatively correlated with the brightness levels for said data blocks.

3. (Cancelled)

4. (Original) The method according to claim 1, wherein the watermark detecting operation includes multiplying the transform domain data with a detecting function.

5. (Original) The method according to claim 4, wherein the detecting function is e^{ikr} , where k and r are phase space indices applicable to the transform domain data.

6. (Original) The method according to claim 4, wherein the detecting operation further includes applying an envelope function to the transform domain data that has been multiplied by the detecting function.

7. (Original) The method according to claim 6, wherein the detecting operation further includes applying an inverse transform to the transform domain data that has been multiplied by the detecting function and to which the envelope function has been applied.

8. (Currently Amended) The method according to claim 1, wherein the PIUE is part of a postal ~~indicia~~indiciu.

9. (Currently Amended) The method according to claim 1, wherein at least one of the regions of the PIUE overlap with one or more other regions of the PIUE to which the data blocks correspond are ~~at least partially~~ overlapping with each other.

10. (Currently Amended) A method of determining whether a printed-image-under-examination (PIUE) is a copy of an original printed image, the original printed image including a watermark applied to the image using a plurality of wave vectors, the method comprising:

(a) scanning the PIUE to generate scanned image data, the scanned image data comprising pixel data, the pixel data comprising gray scale values and representing the PIUE as a set of scanning pixels;

(b) forming a plurality of data blocks from the scanned image data, each data block consisting of pixel data which corresponds to a respective region of the PIUE;

(c) transforming the pixel data in at least some of the data blocks to obtain transform domain data by applying at least one of a Fourier transform, a fast Fourier transform, a discrete cosine transform (DCT) and a wavelet transform to the pixel data in the at least some of the data blocks to obtain the transform domain data;

(d) applying a watermark detecting operation to the transform domain data for respective ones of the data blocks to generate recovered watermark data; and

(e) determining at least one of (i) a correlation between the recovered watermark data for at least some of the data blocks and average brightness levels for said data blocks, and (ii) a correlation between the recovered watermark data and the wave vectors.

11. (Currently Amended) The method according to claim 10, further comprising:

(f) determining that the PIUE is a copy of the original printed image if a strength~~signal level~~ of the recovered watermark data ~~is negatively correlated~~decreases with the brightness levels for said data blocks.

12. (Currently Amended) The method according to claim 10, further comprising:

(f) determining that the PIUE is a copy of the original printed image if a strength~~signal level~~ of the recovered watermark data ~~is positively correlated~~increases with wavelengths of the wave vectors.

13. (Cancelled)

14. (Original) The method according to claim 10, wherein the watermark detecting operation includes multiplying the transform domain data with a detecting function.

15. (Original) The method according to claim 14, wherein the detecting function is e^{ikr} , where k and r are phase space indices applicable to the transform domain data.

16. (Original) The method according to claim 14, wherein the detecting operation further includes applying an envelope function to the transform domain data that has been multiplied by the detecting function.

17. (Original) The method according to claim 16, wherein the detecting operation further includes applying an inverse transform to the transform domain data that has been multiplied by the detecting function and to which the envelope function has been applied.

18. (Currently Amended) The method according to claim 10, wherein the PIUE is part of a postal ~~indicia~~indiciu.

19. (Currently Amended) The method according to claim 10, wherein at least one of the regions of the PIUE overlap with one or more other regions of the PIUE to which the data blocks correspond are ~~at least partially~~ overlapping with each other.

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)